

**AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND  
AIR CONDITIONING ENGINEERS, INC.**

**1791 Tullie Circle, NE / Atlanta, GA 30329**  
**(404) 636-8400**

## TC/TG/TRG MINUTES COVER SHEET

***(Minutes of all TC/TG/TRG Meetings are to be distributed to all persons listed below within 60 days following the meeting.)***

**TC/TG/TRG NO.:** 4.10

**TC/TG/TRG TITLE:** INDOOR ENVIRONMENTAL MODELING

**DATE OF MEETING:** January 14, 2002

**LOCATION:** Atlantic City

**DATE ISSUED:** February 22, 2002

**RECORDED BY:** **W. S. Dols**

VOTING MEMBERS	YEAR		PRESENT y/n	Sub-committee Chairs	
	On	Off			
Horstman, Raymond, Chair	00	02	Y	Membership	Hosni, Mohammad
Schwarz, Walter, Vice Chair	00	02	Y	Programs	Emmerich, Steven
Clark, Daniel	00	02	N	Research	Phillips, Duncan
Emmerich, Steven	98	02	Y	Standards	Ensor, David
Kato, Shinsuke, International	00	04	N	Secretary/Web Page	Dols, W. Stuart
Baker, A J	99	03	Y	Handbook	Baker, A. J.
Ensor, David	98	02	N		
Gaston, Charles	00	02	N		
Hosni, Mohammad	00	04	Y		
Musser, Amy	01	05	Y		
Phillips, Duncan	00	04	N		
Van Gilder, James	01	05	Y		
Von Kempster, Diotima	98	02	Y		
Yang, Xudong	01	05	Y		

CORRESPONDING MEMBERS		PRESENT	CORRESPONDING MEMBERS		PRESENT
Allard, Francis		N			
Anderson, Ren		N	Markel, Lawrence		N
Arens, Edward		N	Melikov, Arsen		N
Axley, James		N	Morrison, Ian		N
Baban, Farzad		N	Murakami, Shuzo		N
Barakat, James		N	Musser, Amy		N
Barles, Pierre		N	Offermann, Francis		N
Becker, Bryan		N	Olesen, Bjarne		N
Blackmore, Byron		N	Pei, Hsien-Sheng		N
Carter, John		N	Peterson, Janice		N
Chen, Qingyan		N	Phillips, Duncan		N
Christianson, Leslie		N	Rivers, Richard		N
Colliver, Donald		N	Roberts, Jack		N
Dols, W. Stuart		Y	Rogers, Lisa		N
Fanger, Ole		N	Sanchez, Greg		N
Farrington, Franklin		N	Sawachi, Takao		N
Gadgil, Ashok		N	Seppanen, Olli		N
Gordon, Elliott		N	Sestak, George		N
Grimsrud, David		N	Shaw, Chia-Yu		N
Grot, Richard		N	Sinclair, Ray		N
Haghighat, Fariborz		N	Srebric, Jelena		N
Hall, John		N	Teichman, Kevin		N
Hensen, Jan		N	Tompkins, Dean		N
Hosni, Mohammad		Y	Tronville, Paolo		N
Int-Hout, Daniel		N	Vandermeullen, Paul		N
Janssen, John		N	Walton, George		N
Jones, Gordon		N	Willman, Alexander		N
Jones, Robert		N	Yoshizawa, Susumu		N
Kato, Shinsuke		N	Zhang, Dexian		N
Kelso, Richard		N	Zhang, Jianshun		N
Kerr, Carolyn		N	Zhang, Wei		N
Kirkpatrick, Allan		N			N
Knappmiller, Kevin		N			
Krafthefer, Brian		N			
Levin, Hal		N			
Manning, Andy		N			
Markel, Morris		N			

**ADDITIONAL ATTENDANCE**

Goa, Yang	MIT
Kondo, Yasushi	MIT
Jones, Byron	Kansas State
Yang, Xudong	University of Miami
Armstrong, Peter	PNNL

**Society Liaisons, etc.**

**Present:**

Groll, Eckhard	TAC Section Head	y/n
Boome, Alexander	Education Liaison	N
Crowther, Hugh	Refrigeration Liaison	N
Knebel, David	Standards Liaison	N
Friberg, Emil	Program Liaison	N
Sachs, Harvey	Journal/Insights Liaison	N
Dean, William	TAC Chairman	N
Driscoll, Joseph	Special Publications Liaison	N
Ramspeck, Claire	Staff Liaison (Standards)	N
Knight, William	TEGA Liaison	N
Seaton, William	Staff Liaison (Research)	N
Weiland, Martin	Staff Liaison (Tech. Services)	N

1. **Call to Order:** Acting Chairman **Ray Horstman** called the meeting to order.
2. **Welcome and Introductions (Ray Horstman)**
3. **Roll Call (Stuart Dols)**  
Nine out of fourteen voting members were present and a quorum was established.
4. **Research (Ray Horstman)**
  - Subcommittee chair not present
  - No active projects at present time
  - Planned Research-25 approved projects (Emmerich)
  - Last meeting 3 RTAR were submitted, some confusion over which were still on books. Need to make sure they are on books for next meeting, need representatives.
  - Current research projects (1,2,3 still in work statement level)
    1. Computational Prediction and Analysis of Natural Ventilation – **work statement submitted, not available at meeting**
    2. Modeling Low Velocity Large Scale Fluctuating Flows in Ventilated Spaces (Ray Horstman) **Move to submit approved work statement 8/0/1/14 Trying to upgrade to high priority.**
    3. Modeling Ventilated Environments with Large Internal Heat Loads-**work statement submitted; low priority**
    4. Modeling VOC Sorption of Building Materials and Its Impact on Indoor Air Quality-Phase II(second phase of RP-1097)
  - New RTAR submitted (Ray Horstman)  
***Airborne Pathogen Concentration Correlation to Disease Tool***  
Support from Environmental Health Committee  
Gemma Kerr taking RTAR to TC2.4 attention  
Continue to next meeting
  - Research objectives:  
No changes to work statement of TC objectives covered at a previous meeting.
5. **Announcements: Ray Horstman** attended TC Chair Meeting and the following items were discussed:
  - ASHRAE Handbook
    1. focusing on becoming a Handbook CD
    2. TC believes handbook is its most important product
    3. Want chapters to be looked at closely
    4. Paper version of handbook is going to be a background version
    5. CD is going to be animated, have sound clips, photos
    6. Do not want equations and mathematical stuff in the Applications Refrigeration Systems section but keep it in the fundamentals
    7. Handbook is outdated-To make it better, asking members to go through chapters and if there is anything they know is not working to bring it to the committee of that chapter
  - Web Master Training
    1. Every TC committee should have a web master
    2. Web master training in Honolulu
  - TC committees have to have minimum of 6 voting members and a minimum of 12 corresponding members
  - 2 work statements approved at last RAC, 4 returned
  - May 15 deadline for work statements for Honolulu
  - Tech Transfers – TEGA (Technical Energy Government Activity)
  - ASHRAE Learning Institute (ALI) (started in 1998)
    1. replaced old Education Council
    2. made up of self learning courses, short courses

3. Need persons for peer reviews
4. Should be an ALI representative in every TC committee.  
M. Hosni will be the representative for TC 4.10
- 75 % of programs are submitted by email
- Deadline for paper packages for Honolulu is Feb. 8
- Restructuring international memberships in regions
- Needed to know how many members going to Honolulu – 15 individual members
- Given 6 critical things to respond to:
  1. Frequently asked questions
  2. Are name and scope okay?
  3. Handbook survey
  4. Membership
  5. Need more handbook feedback from TC
  6. rollover roster
6. **Membership**
  - Duncan will continue to chair
  - Yan Chen, Steve Emmerich, Charles Gaston, Walt Schwarz, Diotima Von Kempfski are going to be moved to corresponding members at summer meeting
  - 7 voting member spots left with room for more  
New voting members- Gemma Kerr, Stuart Dols, Paolo Tronville (international)
7. **Program (Steve Emmerich)**
  - ASHRAE Program Committee newsletter updated Commercialism policy
  - 3 symposium items for Honolulu are on schedule:
    1. **Practical Applications of Multizone Modeling** organized by Stuart Dols
    2. **Airflow Around Human Bodies** organized by Jianshun Zhang
    3. **Modeling Natural or Hybrid Ventilation Systems** organized by Jim Van Gilder
  - 4<sup>th</sup> symposium item delayed to Chicago or Kansas City: **Material Emissions/Adsorption and IAQ**
    1. Gemma Kerr organized originally. Several interested authors but no papers as of yet.
    2. Mo Hosni agreed to be new Champion and take to Kansas City meeting
  - Jelena Srebric seminar **Successful Applications of ASHRAE Sponsored research on Indoor Environment Modeling** set up but would like to turn into a symposium
    1. Resubmit for a seminar in Honolulu
    2. Could be 2<sup>nd</sup> item for Chicago meeting
    3. To become a symposium for Chicago meeting, papers need to be in by August 8, 2002.
  - Future Planning Program Form (TCs are encouraged to use this form)
    1. 3 symposiums on schedule and under way for Honolulu
    2. 1 seminar and 1 symposium planned for Chicago
    3. 1 symposium planned for Kansas CityProposed symposium **Modeling Turbulence of Indoor Airflow** (R. Hortsman)
8. **Handbook Committee (A.J. Baker)**
  - Plan to restart HB committee - Amy Musser, new Chair
  - Committee members – Walt Schwarz, A.J. Baker, X. Yang, J. Van Gilder
  - Revise 2001 chapter
  - Handbook meeting set for 5-6 on Sunday at Honolulu meeting
9. **Web Site (Stuart Dols)**
  - Update distribution list
10. **Relevant Activities**
  - TC1.2 *Instruments and Measurements* - Arsen Melikov – not present, skipped
  - TC2.1 *Physiology and Human Environment* - Diotima Von Kempfski – not present, skipped
  - TC2.3 *Gaseous Air Contaminants/Removal Equipment* - Gemma Kerr – not present, skipped

TC2.4 *Particulate Air Contaminants/Removal Equipment* - Dave Ensor – not present, skipped

TC5.3 *Room Air Distribution* - John Jenssen – not present, skipped

TC5.8 *Industrial Ventilation* - Duncan Phillips – not present, skipped

TC9.3 *Transportation* - Ray Horstman

Sponsors Standard 161, not going anywhere at present time, project may need to be abandoned

11. **New Business** – discussed throughout meeting

12. **Agenda Suggestions for next meeting** - none

13. A move to **adjourn** was made and approved.